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Firm Entry and Exit in Canada, 2000 to 2008

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.	not available for any reference period
..	not available for a specific reference period
...	not applicable
0	true zero or a value rounded to zero
0^s	value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
^{p}	preliminary
^{r}	revised
x	suppressed to meet the confidentiality requirements of the *Statistics Act*
^{E}	use with caution
F	too unreliable to be published
*	significantly different from reference category ($p < 0.05$)

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Firm Entry and Exit in Canada, 2000 to 2008

By Oana Ciobanu and Weimin Wang

This *Economic Insights* article discusses firm entry and exit patterns in the Canadian business sector and its constituent industries.[1] It focuses on the relative importance of entrants and exiters, calculated in terms of number of firms and employment, the persistence of entry and exit patterns over time, and the correlation between industry entry and exit rates.

Firm entry and exit are important aspects of business dynamics. Schumpeterian "creative destruction" models emphasize the importance of entry and exit to innovation, and hence, to productivity. To survive and replace incumbents, new firms aggressively adopt new ideas. Pressure from entrants forces incumbents to be innovative. In this process, winners stay and grow, while losers decline and exit. Entry and exit renews the industrial population.

The target population in this article is the Canadian business sector—all firms excluding public industries and nonprofit institutions. In 2008, firms in the business sector employing some labour numbered more than one million.[2]

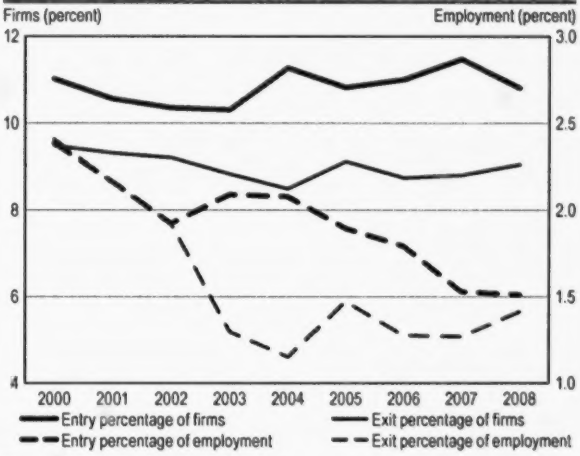
Employing firms are grouped into four categories. In any given year, entrants are new firms that did not exist the previous year; exiters are firms that will have exited the market within the year; short-lived firms are those that enter and exit in the same year; and continuing firms are those that have existed and will continue to exist by year end. Entry and exit measures in this article exclude short-lived firms.

Entry and exit patterns over time

In every year during the 2000-to-2008 period, almost one firm in 10 had either just entered or was about to exit. Calculated in terms of the number of firms, the average yearly entry and exit rates were 10.8% and 9.0%, respectively. Although entrants and exiters are numerous, they account for a much smaller percentage of employment than of the total number of firms. The average entry and exit rates over the period when calculated as a percentage of total business sector employment were 1.9% and 1.6%, respectively. The difference between rates based on the number of firms versus employment reflects the relatively small size of entrants and exiters.

As a percentage of all active firms, the rates of entry and exit were relatively constant during the 2000-to-2008 period (Chart 1). However, rates of entry and exit as a percentage of total employment declined, because the average size of entrants and exiters fell.

Chart 1
Entry and exit patterns, total business sector, 2000 to 2008



Source: Statistics Canada, authors' calculations.

This difference is also apparent at the industry level. The rates of entry and exit based on the number of firms were stable, but in a majority of industries, rates of entry and exit based on employment trended down.

1. The analysis in this article is based on Statistics Canada Longitudinal Employment Analysis Program (LEAP) datasets.
2. The data are taken from the Longitudinal Employment Analysis Program. See Ciobanu and Wang (2012).

More entry than exit

On average, from 2000 to 2008, entrants' numbers and employment were 20% higher than those of exiters. Consequently, the number of firms increased over this period. This pattern also prevailed at the industry level. In 16 of the 18 business industries examined, entrants exceeded exiters. The exceptions were agriculture and non-durable manufacturing, where the opposite occurred.

Entry and exit react differently to time-varying factors. At the aggregate level, the intensity measures of entry and exit were negatively correlated. At the industry level, the correlation was positive in 7 industries and negative in 11, suggesting that the reaction of entry and exit to time-varying factors differs considerably across industries. In some industries, the two move together; in others, the two move in opposite directions.

Heterogeneity across industries

Firm entry and exit rates, measured either by the number of firms or by employment, differ substantially across industries (Table 1).

When calculated using the number of firms, the entry rate ranged from 6.6% in non-durable manufacturing to 13.5% in professional services. Based on employment share, the entry rate ranged from 0.7% in utilities to 3.4% in education and arts and entertainment. On average, the service-producing sector had a higher entry rate than did the goods-producing sector.

The exit rate based on the number of firms ranged from 6.0% in health to 11.0% in arts and entertainment. Based on employment share, the exit rate ranged from 0.6% in utilities to 2.8% in agriculture. As was the case for entry, the two exit measures were higher in the service-producing sector than in the goods-producing sector.

Because of the similarity in industry-specific factors, differences between industry entry and exit rates persist over time (Table 2). A positive inter-temporal correlation of entry (exit) indicates that industries with higher-than-average entry (exit) in any one year tend to have higher-than-average entry (exit) in subsequent years. Based on the number of firms, the entry and exit rates were positively correlated except for the exit rate in 2000. Exits in 2000 may have been largely driven by the bursting of the dotcom bubble.

Across industries, entry is positively correlated with exit. In terms of the industry average over 2000-to-2008, the correlation coefficient between the entry and exit rates was 0.63 when calculated by number of firms and 0.87 in terms of employment. The positive correlation indicates that an industry with higher-than-average entry rates also tends to have higher-than-average exit rates. High exit rates are the consequence of the greater degree of experimentation that is associated with high entry rates.

Table 1
Entry and exit measures, 2000-to-2008 average

	Number of firms		Employment	
	Entry	Exit	Entry	Exit
	percent			
Goods and services industries				
Agriculture	8.4	9.3	2.8	2.8
Mining	13.1	8.7	1.4	1.8
Utility	11.6	10.4	0.7	0.6
Construction	12.1	8.5	3.0	2.0
Manufacturing, durables	7.3	6.9	1.1	0.9
Manufacturing, non-durables	6.6	8.1	0.9	1.1
Wholesale trade	8.0	7.9	1.2	1.2
Retail trade	9.6	9.1	1.5	1.3
Transportation and warehousing	12.7	10.0	1.4	1.3
Information and cultural	12.3	9.8	1.9	1.2
Financial, insurance and real estate	11.0	9.1	1.7	1.6
Professional services	13.5	9.5	3.2	2.3
Administrative services	12.0	9.4	2.6	1.8
Education	12.9	8.8	3.4	2.2
Health	8.5	6.0	2.5	1.7
Food and accommodation	9.9	8.2	1.9	1.4
Arts and entertainment	12.0	11.0	3.4	2.6
Personal services	10.5	9.1	3.0	2.6
Goods	10.0	8.4	1.6	1.4
Services	11.2	9.2	2.1	1.7
Total business	10.8	9.0	1.9	1.6

Source: Statistics Canada, authors' calculations.

Table 2
Inter-temporal correlation, entry and exit, by number of firms

	Entry									Exit								
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2000	2001	2002	2003	2004	2005	2006	2007	2008
	correlation coefficient																	
Year																		
2000	1.00	0.94	0.87	0.86	0.84	0.84	0.81	0.76	0.80	1.00	0.77	0.18	-0.16	-0.41	-0.05	-0.21	0.17	-0.25
2001	...	1.00	0.95	0.90	0.90	0.89	0.82	0.82	0.88	...	1.00	0.72	0.44	0.18	0.50	0.37	0.68	0.37
2002	...	...	1.00	0.88	0.84	0.82	0.74	0.81	0.87	...	...	1.00	0.88	0.77	0.84	0.85	0.94	0.81
2003	...	...	...	1.00	0.96	0.94	0.93	0.85	0.88	...	...	...	1.00	0.94	0.94	0.95	0.88	0.84
2004	...	...	...	...	1.00	0.98	0.96	0.89	0.89	...	...	...	...	1.00	0.90	0.96	0.80	0.84
2005	...	...	...	...	...	1.00	0.97	0.91	0.90	...	...	...	...	...	1.00	0.96	0.90	0.79
2006	...	...	...	...	...	...	1.00	0.91	0.87	...	...	...	...	...	...	1.00	0.91	0.88
2007	...	...	...	...	...	...	...	1.00	0.96	...	...	...	...	...	...	...	1.00	0.83
2008	...	...	...	...	...	...	...	...	1.00	...	...	...	...	...	...	...	...	1.00

Source: Statistics Canada, authors' calculations.

References

This *Economic Insights* article is based on research carried out by the Economic Analysis Division. For more information see:

Ciobanu, O., and W. Wang. *Firm Dynamics: Firm Entry and Exit in Canada, 2000 to 2008.* Statistics Canada Catalogue no. 11-622-M. Ottawa, Ontario. The Canadian Economy in Transition. No. 22.